Docket No.

295899US0PCT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:

Toshiaki KUDO, et al.

SERIAL NO:

10/591,464

GAU:

FILED:

September 1, 2006

EXAMINER:

FOR:

METHOD OF SCREENING FUNGUS-SPECIFIC ANTIMICROBIAL AGENT AND KIT THEREFOR

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS ALEXANDRIA, VIRGINIA 22313

SIR

Applicant(s) wish to disclose the following information.

REFERENCES

- The applicant(s) wish to make of record the references cited in the attached International Search Report and Written Opinion and listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- Attached is a list of applicant's pending application(s), published application(s) or issued patent(s) which may be related to the present application. In accordance with the waiver of 37 CFR 1.98 dated September 21, 2004, copies of the cited pending applications are not provided. Cited published and/or issued patents, if any, are listed on the attached PTO form 1449.
- A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- □ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

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Tel. (703) 413-3000 Fax. (703) 413-2220 (OSMMN 05/03) DOCKET NO.: 295899US0PCT

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STATEMENT OF RELEVANCY

References AJ, AK, AS through AZ and BR through BY on Form PTO-1449:

These references are mentioned in the specification.

1 4 2006 ATTY DOCKET NO. SERIAL NO. U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE Form PTO 1449 (Modified) 295899US0PCT 10/591,464 APPLICANT LIST OF REFERENCES CITED BY APPLICANT Toshiaki KUDO, et al. FILING DATE GROUP September 1, 2006 U.S. PATENT DOCUMENTS FILING DATE **EXAMINER** DOCUMENT SUB CLASS DATE NAME INITIAL IF APPROPRIATE NUMBER **CLASS** 11/17/1998 Kathryn J. ELLIOTT, et al. AA 5,837,489 AB 5,939,306 8/17/1999 Lisa A. ALEX, et al. 2004/0013759 A1 AC 1/22/2004 Richard B. JENSEN, et al. **FOREIGN PATENT DOCUMENTS** DOCUMENT **TRANSLATION** DATE COUNTRY NUMBER YES NO WIPO (corresponding AU 6770398) 10/8/1998 WO 98/44148 AD Australia (reference is not avaliable, submitting AF AU 6770398 WO 98/44148 only) Japan (with English Abstract and corresponding 8/13/1996 WO 94/20617; corresponding US 5,837,489 and X ΑF 8-507441 EP 688361 A) WO 94/20617 WIPO (corresponding EP 688361 A) AG 9/15/1994 Europe (reference is not avaliable, submitting ΑН FP 688361 A WO 94/20617 only) EP 1 415 996 A2 5/6/2004 Europe (corresponding US 2004/0013759 A1) ΑI 5-294995 11/9/1993 Japan (with English Abstract) AJ 9-124411 5/13/1997 Japan (with English Abstract) AK OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.) Noriyuki OCHIAI, et al., "Characterization of mutations in the two-component histidine kinase gene that confer fludioxonil resistance and osmotic sensitivity in the os-1 mutants of Neurospora crassa", Society of Chemical Industry, Pest. Manag. Sci., vol. 57, no. 5, 2001, pages 437-442 Michiyo OSHIMA, et al., "A Point Mutation in the Two-Component Histidine Kinase Bc0S-1 Gene Confers Dicarboximide Resistance in Field Isolates of Botrytis cinerea", The American Phytopathological Society, vol. 92, no. 1, 2002, pages 75-80 Noriyuki OCHIAI, et al., "Effects of Iprodione and Fludioxonil on Glycerol Synthesis and Hyphal Development in Candida AN albicans", Biosci. Biotechnol. Biochem., vol. 66, no. 10, 2002, pages 2209-2215 A. YOSHIMI, et al., "Cloning and characterization of the histidine kinase gene Dic1 from Cochliobolus heterostrophus that confers dicarboximide resistance and osmotic adaptation", Mol. Gen. Genomics, vol. 271, no. 2, January 2004, pages 228-AO Takayuki MOTOYAMA, et al., "Analysis of a signal transduction system mediated by histidine kinase in Pyricularia oryzae", ΑP Institute of Physical and Chemical Research, 3-5Dp16, March 5, 2002, page 187, (with Partial English Translation) Makoto FUJIMURA, et al., "Histidine Kinase Signal Transduction and Drug Resistance in Filamentous Fungi", Life Sciences AQ Department, Toyo University, vol. 28, no. 4, 2003, pages 484-488 (with English Translation) Takayuki MOTOYAMA, et al. "Creation of a Saccharomyces cerevisiae strain sensitive to filamentous fungus-specific fungicides through the expression of a filamentous fungus-derived histidine kinase", Institute of Physical and Chemical Research, Toyo University, 2A06a08, March 5, 2004, page 21, (with Partial English Translation) "Phytopathological Encyclopedia", Yokendo, March 30, 1995, 4 pages (with Partial English Translation) AS Christian PILLONEL, et al., "Effect of Phenylpyrroles on Glycerol Accumulation and Protein Kinase Activity of Neurospora crassa", Pestic. Sci., 49, 1997, pages 229-236 Makoto FUJIMURA, et al., "Sensitivity to Phenylpyrrole Fungicides and Abnormal Glycerol Accumulation in Os and Cut ΑU Mutant Strains of Neurospora crassa", J. Pestic. Sci., 25, 2000, pages 31-36 Lisa A. ALEX, et al., "Hyphal development in Neurospora crassa: Involvement of a two-component histidine kinase", Proc. Natl. Acad. Sci., USA, Microbiology, vol. 93, April 1996, pages 3416-3421 Irene M. Ota, et al., "A Yeast Protein Similar to Bacterial Two-Component Regulators", Science, vol. 262, October 22, 1993, pages 566-569 Takeshi URAO, et al., "A Transmembrane Hybrid-Type Histidine Kinase in Arabidopsis Functions as an Osmosensor", The Plant Cell, www.plantcell.org, American Society of Plant Physiologists, vol. 11, September 1999, pages 1743-1754 Gregory B. POTT, et al., "The Isolation of FOS-1, a Gene Encoding a Putative Two-Component Histidine Kinase from Aspergillus fumigatus", Fungal Genetics and Biology, 31, 2000, pages 55-67 M. Virginia, et al., "A novel 'two-component' protein containing histidine kinase and response regulator domains required for sporulation in Aspergillus ΑZ Additional References sheet(s) attached nidulans", Curr. Genet., 37, 2000, pages 364-372 Examiner **Date Considered** *Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in

conformance and not considered. Include copy of this form with next communication to applicant.

ATTY DOCKET NO. SERIAL NO. Form PTO 1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE (Modified) 10/591,464 295899US0PCT **APPLICANT** LIST OF REFERENCES CITED BY APPLICANT Toshiaki KUDO, et al. **GROUP** FILING DATE September 1, 2006 **U.S. PATENT DOCUMENTS** FILING DATE SUB **EXAMINER** DOCUMENT CLASS DATE NAME IF APPROPRIATE INITIAL NUMBER CLASS BA BB вС BD BE BF BG вн ВΙ BJ вк BL ВМ BN **FOREIGN PATENT DOCUMENTS TRANSLATION** DOCUMENT DATE COUNTRY NUMBER YES NO Х BO 2005-87182 4/7/2005 Japan (with English Abstract) BP BQ OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.) Ann H. WEST, et al., "Histidine kinases and response regulator proteins in two-component signaling systems", TRENDS in BR Biochemical Sciences, vol. 26, no. 6, June 2001, pages 369-376 Lisa A. ALEX, et al., "COS1, a two-component histidine kinase that is involved in hyphal development in the opportunistic pathogen Candida albicans", Proc. Natl. Acad. Sci. USA, Microbiology, vol. 95, June 1998, pages 7069-7073 BS Shigehisa NAGAHASHI, et al., "Isolation of CaSLN1 and CaNIK1, the genes for osmosensing histidine kinase homologues, from the pathogenic fungus Candida albicans", Microbiology, 144,1998, pages 425-432 вт Tatsuya MAEDA, et al., "Activation of Yeast PBS2 MAPKK by MAPKKKs or by Binding of an SH3-Containing Osmosensor", BU Science, vol. 269, July 28, 1995, pages 554-558 Makoto FUJIMURA, et al., "Putative Homologs of SSK22 MAPKK Kinase and PBS2 MAPK Kinase of Saccharomyces cerevisiae Encoded by os-4 and os-5 Genes for Osmotic Sensitivity and Fungicide Resistance in Neurospora crassa", ΒV Biosci. Biotechnol. Biochem., 67, 1, 2003, pages 186-191 lan B. DRY, et al., "Dicarboximide resistance in field isolates of Alternaria alternata is mediated by a mutation in a two-BW component histidine kinase gene", Fungal Genetics and Biology, 41, 2004, pages 102-108 Yan ZHANG, et al., "Osmoregulation and Fungicide Resistance: the Neurospora crassa os-2 Gene Encodes a HOG1 Mitogen-Activated Protein Kinase Homologue", APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 68, no. 2, ВX February 2002, pages 532-538 Katherine P. DIXON, et al., "Independent Signaling Pathways Regulate Cellular Turgor during Hyperosmotic Stress and Appressorium-Mediated Plant Infection by Magnaporthe grisea", The Plant Cell, www.plantcell.org, American Society of ΒY Plant Physiologists, vol. 11, October 1999, pages 2045-2058 Wei CUI, et al., "An osmosensing histidine kinase mediates dicarboximide fungicide resistance in Botryotinia fuckeliana (Botrytis cinerea)", Fungal Additional References sheet(s) attached Genetics and Biology, 36, 2002, pages 187-198 **Date Considered** Examiner Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in

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